

Dear Mr. Hatfield

My intent is to provide you information in order to consider a LORAN based solution for this 911 caller location requirement.

I would like to first comment on the perception about the relative accuracy of LORAN vs. GPS. I am not by any means anti-GPS, but the ability of a LORAN receiver to repeat or return to a marked position location (repeatability) without a "differential" correction, has always been superior to a commercial GPS receiver, even with a "differential" correction, i.e., DGPS. The inaccuracy associated with using LORAN comes from error in the ability to locate on an absolute basis, (i.e. Latitude/Longitude conversion) due to signal propagation anomalies. I believe a LORAN "fix" for a non-moving user or a user in motion can be as high in relative accuracy as a GPS based system, and sub-meter accuracy is not "out of the question", when using a modern LORAN receiver design.

The ability of a receiver to return to a location, or locate itself relative to a known location, is the true test of any radionavigation system.

I would like to refer you to the following FAA web address/location for a recent FAA presentation on the current activity with a combined GPS/LORAN sensor.

<http://www.navcen.uscg.gov/ftp/LORAN>

To give you an idea of what I have developed, I will forward you a Power Point based presentation I gave at an International Loran Association(ILA), convention in Wash DC in Nov 2000. If you have no problems downloading a Power Point document, let me know and I will send it.

Thanking you,

Jim DeLorme